**Supplementary Table 3**

Percent contribution of the climatic factors included in the MaxEnt model of four holoparasitic plants and their primary hosts.

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Species** | **Climatic factors** | **Percent contribution (%)** |
| 1 | P: *Cynomorium songaricum* | Bio16 | 36.5  |
| Bio2 | 17.7  |
| Bio11 | 16.9  |
| Bio7 | 14.2  |
| Bio17 | 11.6  |
| Bio15 | 3.0  |
| H: *Nitraria sibirica* | Bio7 | 38.6  |
| Bio17 | 22.1  |
| Bio6 | 18.7  |
| Bio12 | 7.4  |
| Bio5 | 6.0  |
| Bio15 | 5.1  |
| Bio2 | 2.2  |
| 2 | P: *Boschniakia rossica* | Bio4 | 71.1  |
| Bio10 | 13.2  |
| Bio14 | 12.9  |
| Bio3 | 2.8  |
| Bio8 | 0.0  |
| H: *Alnus mandshurica* | Bio4 | 34.5  |
| Bio9 | 31.0  |
| Bio14 | 25.3  |
| Bio10 | 7.7  |
| Bio1 | 1.4  |
| 3 | P: *Cistanche deserticola* | Bio18 | 48.9  |
| Bio15 | 13.7  |
| Bio12 | 13.2  |
| Bio4 | 11.2  |
| Bio6 | 6.4  |
| Bio5 | 3.5  |
| Bio2 | 3.1  |
| H: *Haloxylon ammodendron* | Bio13 | 54.3  |
| Bio4 | 18.7  |
| Bio15 | 8.9  |
| Bio19 | 6.9  |
| Bio1 | 6.0  |
| Bio2 | 5.1  |
| 4 | P: *Cistanche mongolica* | Bio18 | 53.2  |
| Bio11 | 23.8  |
| Bio14 | 12.5  |
| Bio8 | 6.9  |
| Bio4 | 2.8  |
| Bio17 | 0.4  |
| Bio2 | 0.4  |
| H: *Tamarix ramosissima* | Bio4 | 40.3  |
| Bio6 | 24.9  |
| Bio18 | 15.4  |
| Bio2 | 8.9  |
| Bio17 | 6.8  |
| Bio15 | 2.4  |
| Bio5 | 1.3  |

\* P: parasite; H: host.